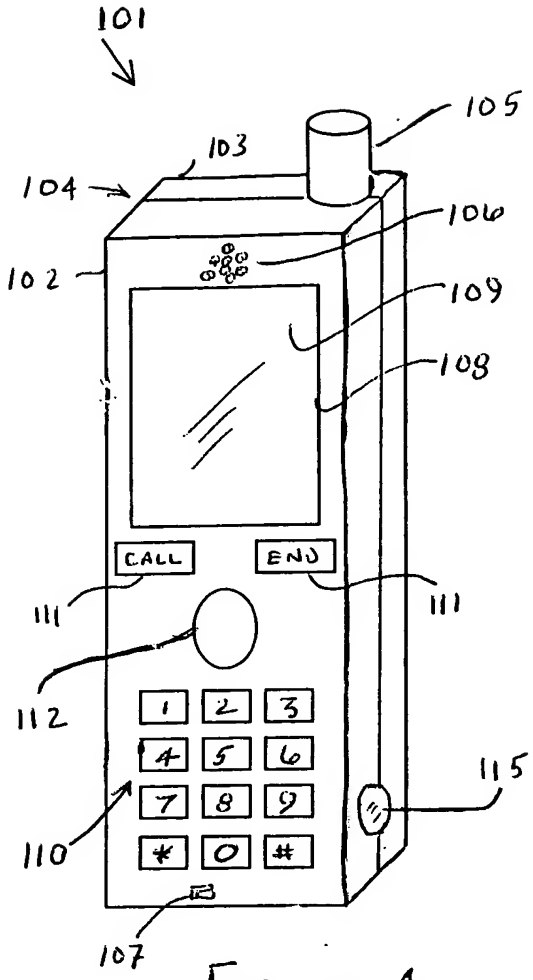


FIGURE 1a

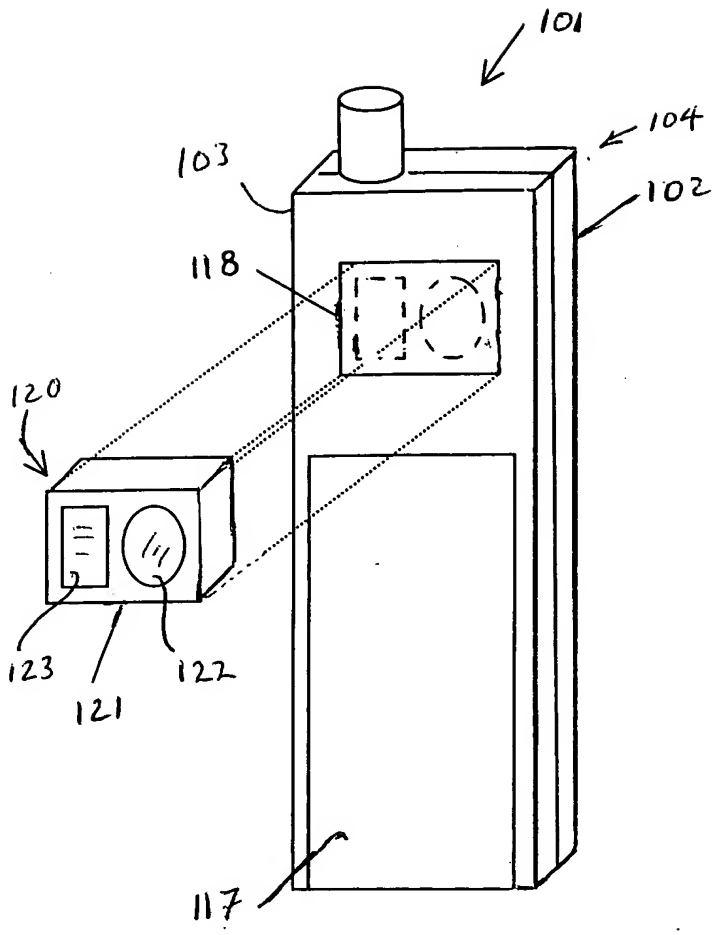


FIGURE 1b

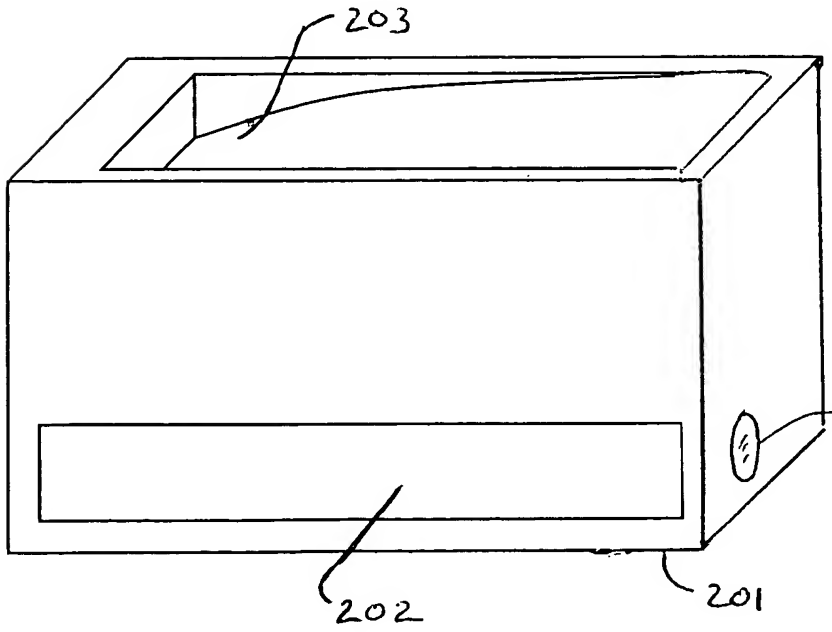
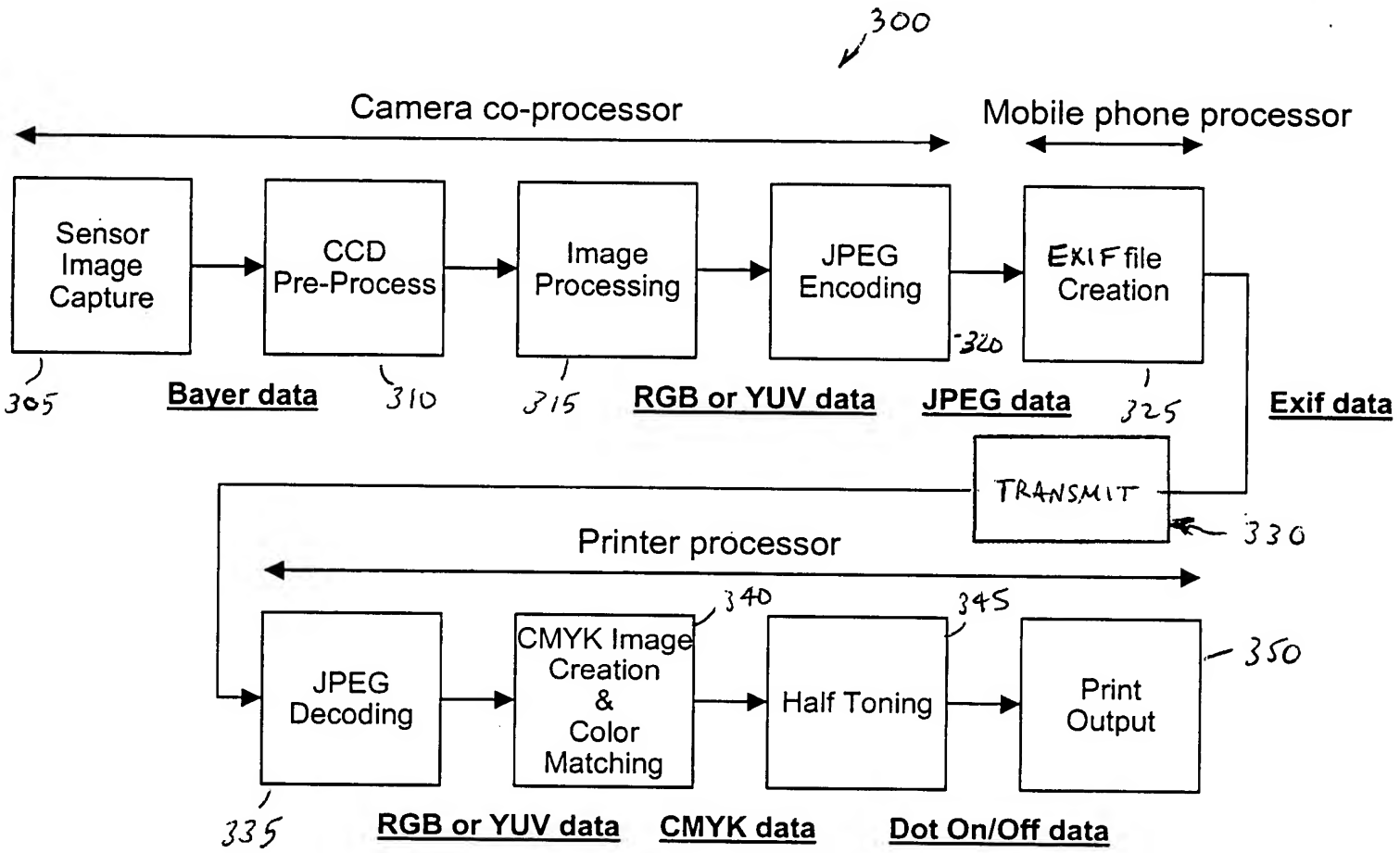


FIGURE 2

FIGURE 3


300
Camera co-processor
Mobile phone processor
Sensor Image Capture
CCD Pre-Process
Image Processing
JPEG Encoding
EXIF file Creation
320
305
Bayer data
310
315
RGB or YUV data
JPEG data
325
Exif data
TRANSMIT
330
Printer processor
340
345
350
JPEG Decoding
CMYK Image Creation & Color Matching
Half Toning
Print Output
335
RGB or YUV data
CMYK data
Dot On/Off data

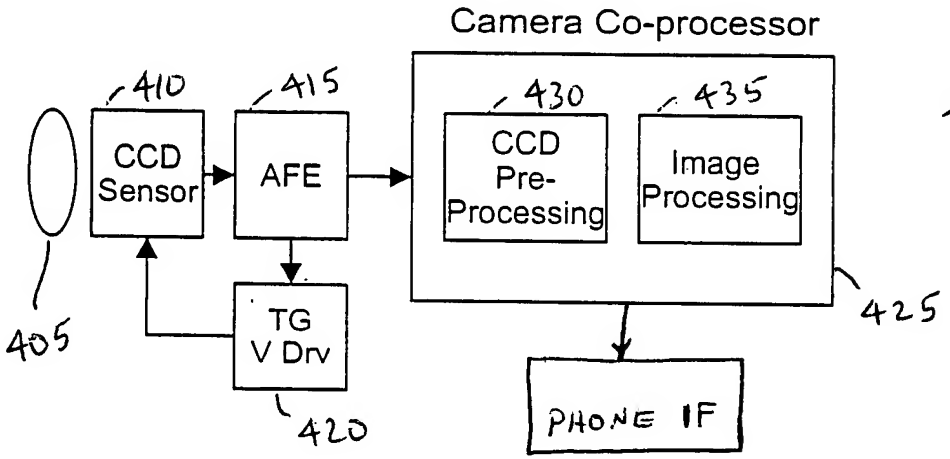


FIGURE 4

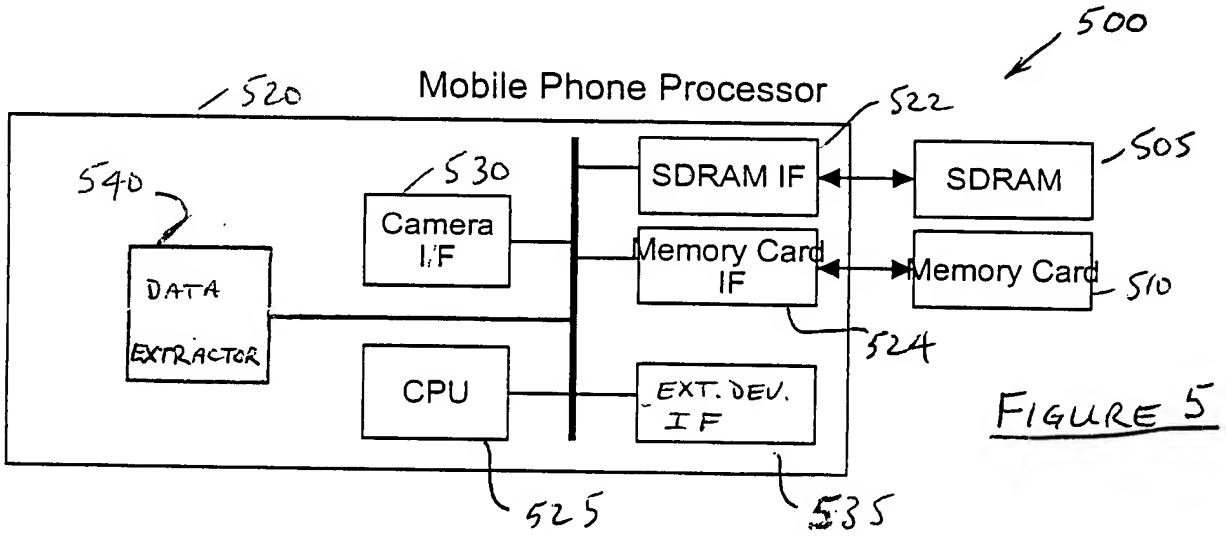
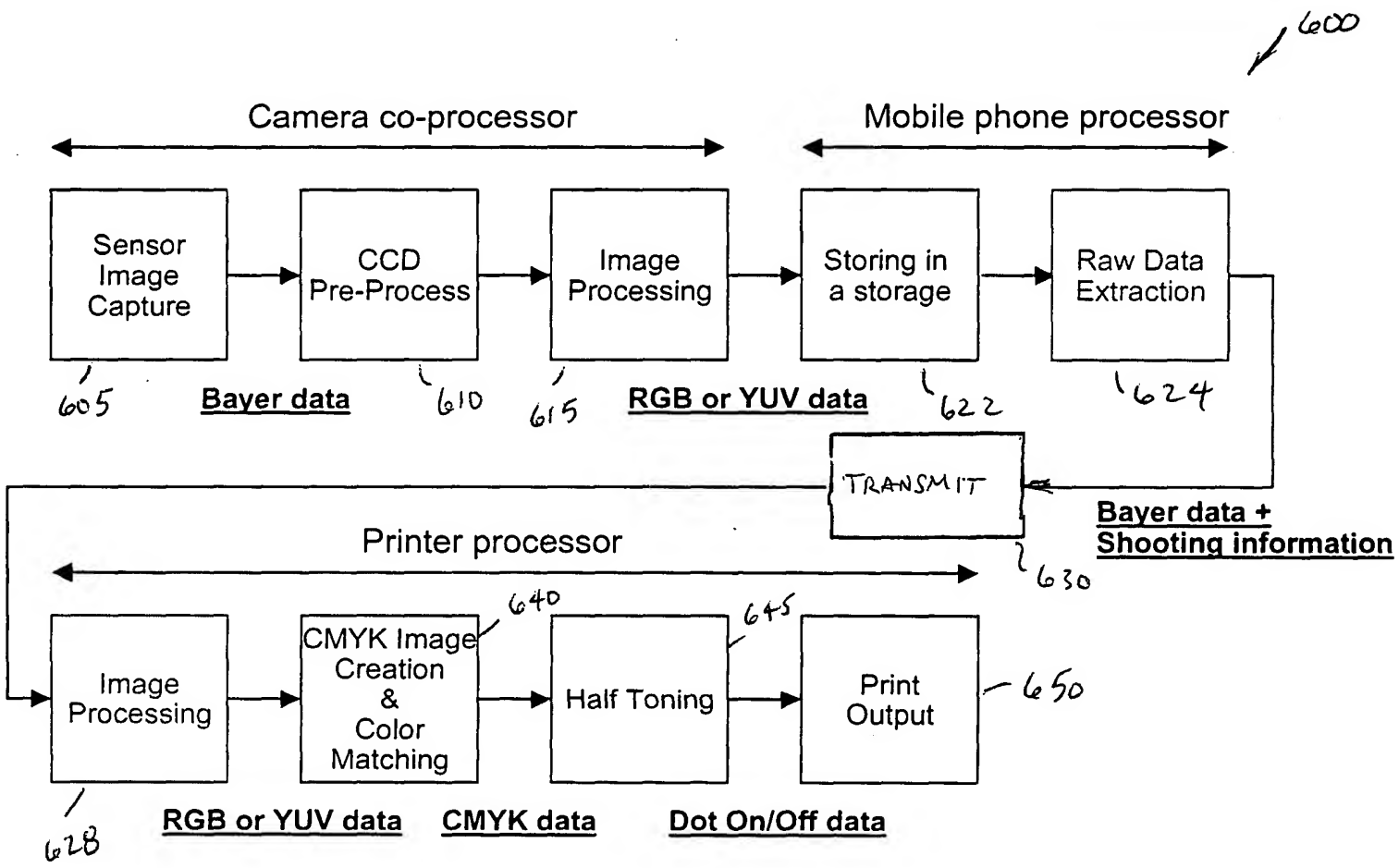


FIGURE 5

FIGURE 6


600
Camera co-processor
Mobile phone processor
Sensor Image Capture
CCD Pre-Process
Image Processing
Storing in a storage
Raw Data Extraction
605
Bayer data
610
615
RGB or YUV data
622
624
TRANSMIT
Bayer data + Shooting information
630
Printer processor
640
645
Image Processing
CMYK Image Creation & Color Matching
Half Toning
Print Output
650
628
RGB or YUV data
CMYK data
Dot On/Off data

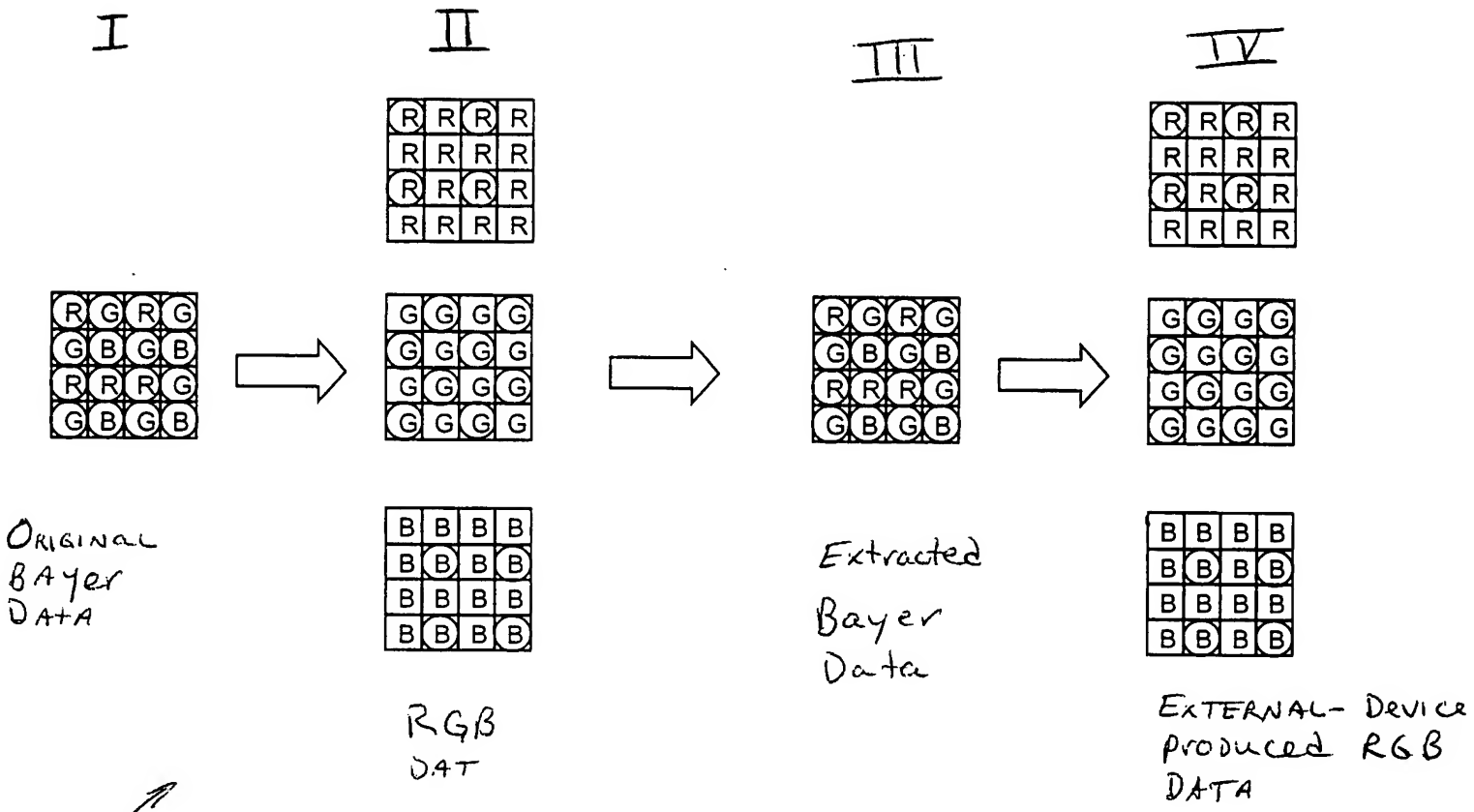
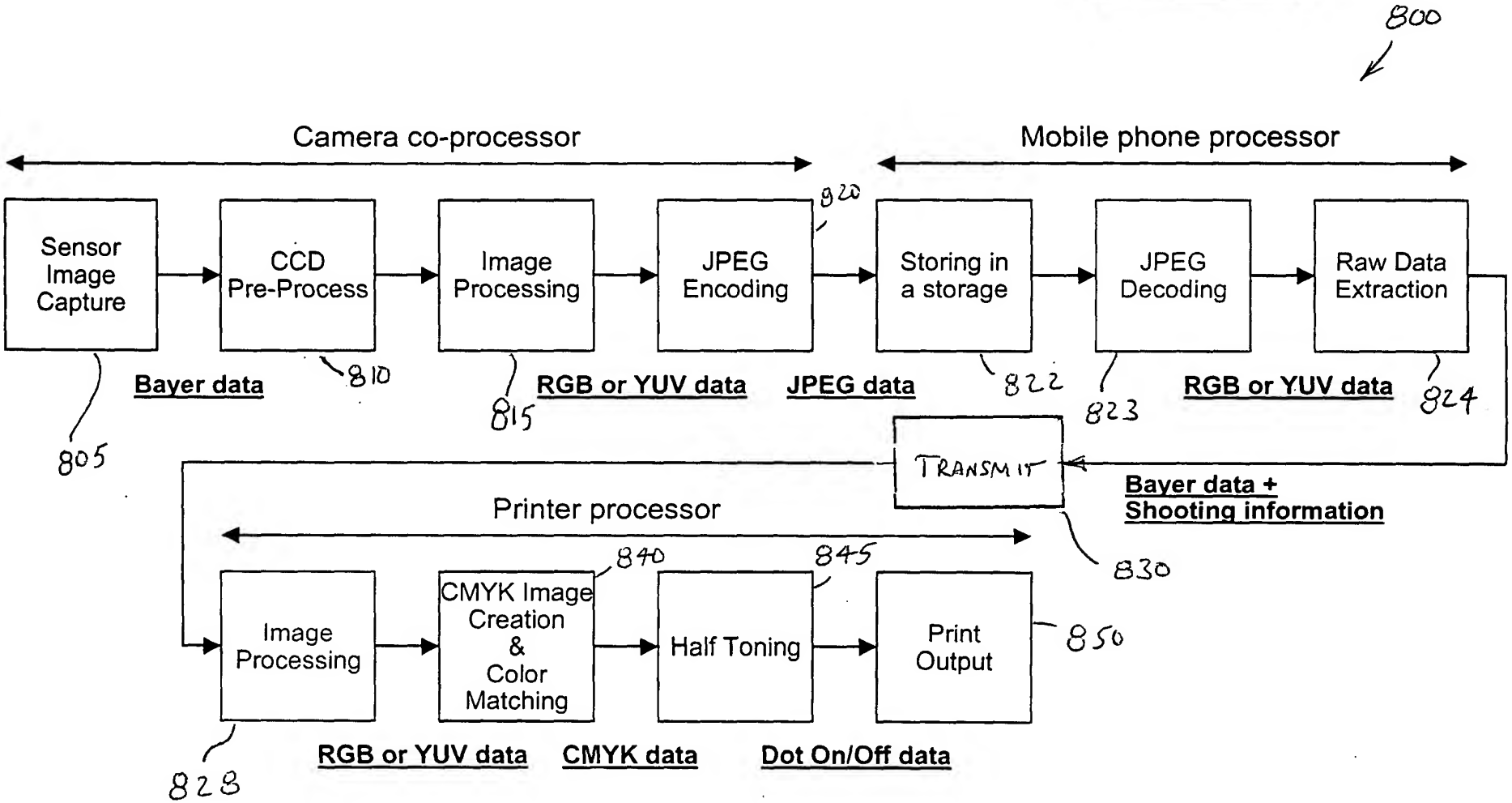

I
II
III
IV
ORIGINAL BAYER DATA
RGB DAT
Extracted Bayer Data
EXTERNAL-DEVICE PRODUCED RGB DATA
700

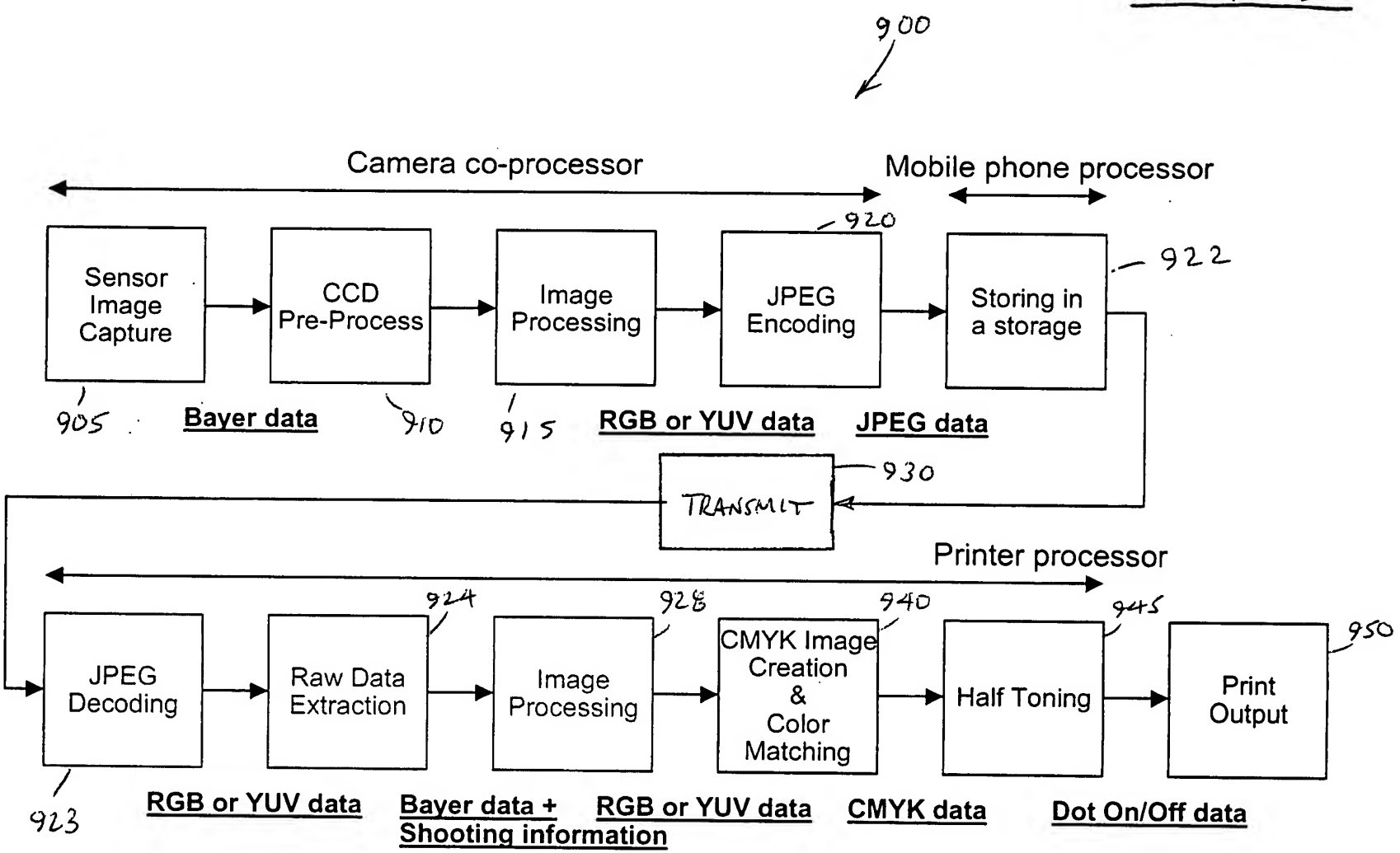
FIGURE 7

FIGURE 8



NOKIA

FIGURE 9


900
Camera co-processor
Mobile phone processor
Sensor Image Capture
CCD Pre-Process
Image Processing
JPEG Encoding
Storing in a storage
920
922
905
Bayer data
910
915
RGB or YUV data
JPEG data
TRANSMIT
930
Printer processor
JPEG Decoding
Raw Data Extraction
Image Processing
CMYK Image Creation & Color Matching
Half Toning
Print Output
924
928
940
945
950
923
RGB or YUV data
Bayer data + Shooting information
RGB or YUV data
CMYK data
Dot On/Off data